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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/836,746	04/17/2001	Andrew Patron	41305-253159	5937

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EXAMINER	
WESSENDORF, TERESA D	

ART UNIT	PAPER NUMBER
1639	

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DATE MAILED: 12/01/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/836,746	Applicant(s) PATRON ET AL.	
	Examiner T. D. Wessendorf	Art Unit 1639	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-51 is/are pending in the application.
- 4a) Of the above claim(s) 1-32, 37, 40-43 and 47-51 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 33-36, 38-39, 44-46 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

Applicant's election with traverse of Group IV claims 33-46 is acknowledged. The traversal is on the ground(s) that searching of the all of the claims would not prove unduly burdensome. This is not found persuasive because the search entails non-patent searches, as well. Because U.S. Patent searches are not co-extensive with the non-literature and foreign patents searches hence, searching all the divergent subject matter will be burdensome. A prior art reference anticipating one subject matter will not render obvious the other subject matter. The requirement is still deemed proper and is therefore made FINAL.

Claims 1-32, 37, 40-43 and 47-51 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim.

Applicants' election of the species of claim 36 for detection means and proteins is noted.

Status of Claims

Claims 1-51 are pending.

Claims 1-32, 37, 40-43 and 47-51 are withdrawn from further consideration pursuant to 37 CFR 1.142(b).

Claims 33-36, 38-39 and 44-46 are under examination.

Specification

The abstract of the disclosure is objected to because of the inclusion of phraseology "comprises" often used in patent claims. Correction is required. See MPEP § 608.01(b).

The disclosure is objected to because of the following informalities:

A. There is no Seq. ID. No. for the tetrapeptide, FLAG, at page 18, line 23. Also, the sequences recited at page 41 up to page 42.

B. The disclosure is objected to because it contains an embedded hyperlink and/or other form of browser-executable code. See e.g., page 34, line 21; page 35, lines 3, 7 and 18. Applicant is required to delete the embedded hyperlink and/or other form of browser-executable code. See MPEP § 608.01.

C. Typographical errors "devises" at page 32, line 7 and "fro" at line 9; page 35, line 17 "ration".

The specification has not been checked to the extent necessary to determine the presence of all possible minor errors (typographical, grammatical and idiomatic). Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 33-36, 39, and 44-46 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

A. It is not clear whether the "component of sample" in the preamble is the same as the "binding surface" in the body of the claims (ii). Also, the "protein expression array" is recited at step (a) but step (b) recites "protein expression systems". "The component" is unclear as to the reference made thereto.

B. Claim 35 is unclear as to the location or determination of the "known" locations.

C. Claim 38 "characterization of DNA" is inconsistent with the base claim, which does not recite DNA, but protein.

D. It is not clear as to the biological or chemical products formed by the interaction of the component of the sample. The base claim recites a binding effect. Furthermore,

the base claim does not recite "at least one component" of the sample.

E. Claim 46 is a duplicate of claim 44, which contains the same limitations.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

Claims 33-36 and 38-39 are rejected under 35 U.S.C. 102(a) as being anticipated by Weiner et al (WO 99/49294).

Weiner et al discloses at page 6, lines 13-25 a method in of screening a plurality of proteins that interact with a component of a sample comprising, generating a cDNA library created in E. coli, and comprising cDNA fused to the DNA sequence encoding the activation domain of the transcriptional activator, GAL4 protein, is plated onto agar plates. The E. coli colonies on each plate are pooled, plasmid DNAs are isolated, and the DNAs are used to transform yeast. The transformed yeast is plated onto solid medium and the colonies on each plate are pooled and aliquoted to separate wells of a 96-well microtiter

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plate to create an arrayed set of 10 "master library" plates.

The master library set is re-aliquoted to create a

"mating set" and a bait-containing yeast are then added separately to each well. The "bait" comprises a chimeric gene that expresses a hybrid protein containing the DNA-binding domain of GAL4 fused to a known protein. The host yeast strain contains the GAL1-lac-Z gene, which is able to bind the GAL4 DNA-binding domain. The GAL1-lacZ gene contains the E. coli lacZ gene encoding .beta.-galactosidase. The activity of .beta.-galactosidase is a measure of GAL4 function. Growth of yeast on galactose requires the transcription of genes regulated by GAL4 and is also a measure of GAL4 function. See further the Examples beginning at page 11 up to page 15. Accordingly, the specific process steps of Weiner employing specific components therein fully meet the broad claimed process steps.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 33-36, 38-39 and 44-46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Weiner in view of Wagner et al (U.S. 6,329,209).

Weiner is discussed above. Weiner does not disclose measuring the interaction between the protein and the component in the sample by spectroscopy. However, Wagner discloses at col. 1, lines 56-60 the current technologies for the analysis of proteomes are based on a variety of protein separation techniques followed by identification of the separated proteins. The most popular method is based on 2D-gel electrophoresis followed by "in-gel" proteolytic digestion and mass spectroscopy. Said spectroscopy detection is further taught by Wagner at col. 34, line 7.


It would have been obvious one having ordinary skill in the art at the time the invention was made to use in the method of Weiner, spectroscopy detection as taught by Wagner. This is because spectroscopy is the current known method by which protein array is detected. One having ordinary skill in the art would have reasonably expected that the current method of spectroscopy could successfully be applied to identifying the protein-component binding in an array.

No claim is allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to T. D. Wessendorf whose telephone number is (703) 308-3967. The examiner can normally be reached on Flexitime.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Wang can be reached on (703) 306-3217. The fax phone number for the organization where this application or proceeding is assigned is (703) 308-7924.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0196.


T. D. Wessendorf
Primary Examiner
Art Unit 1639

Tdw
November 28, 2003